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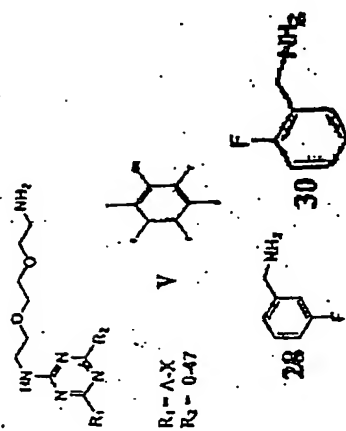
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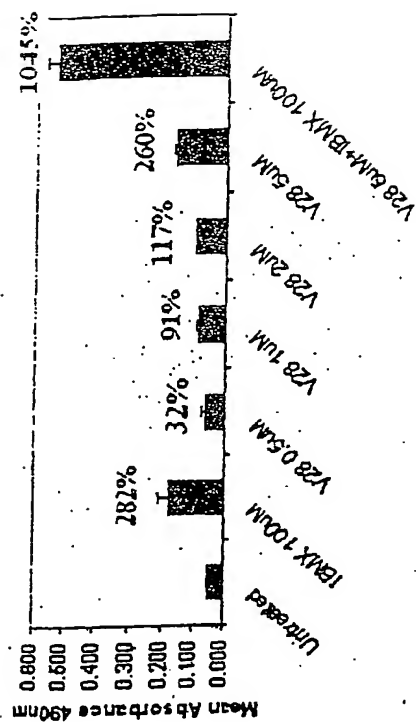
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A

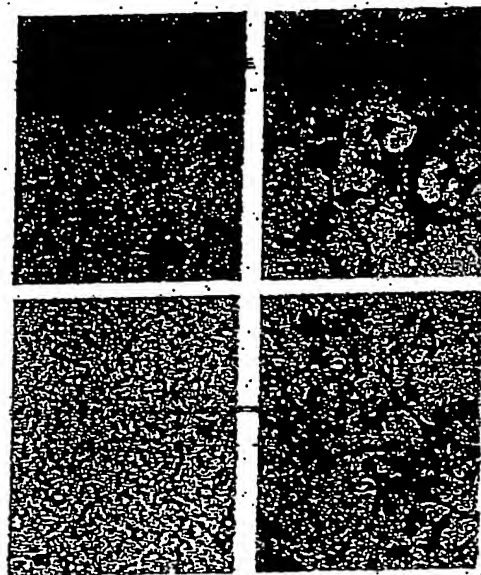
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D



B



C

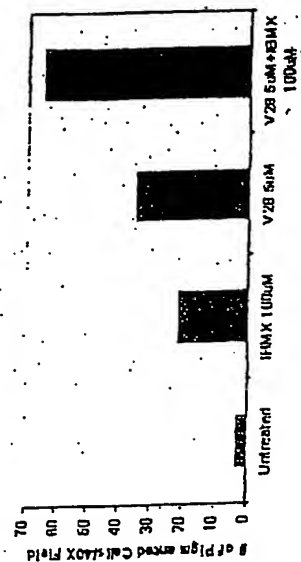
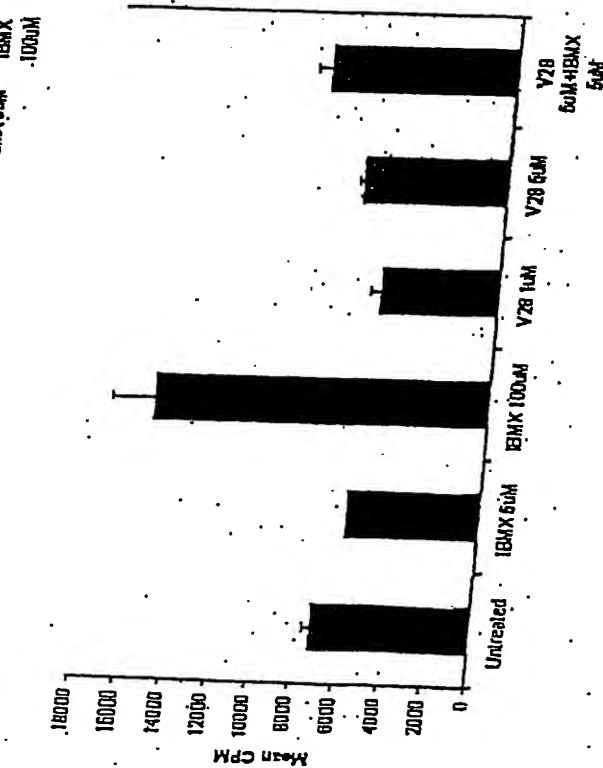
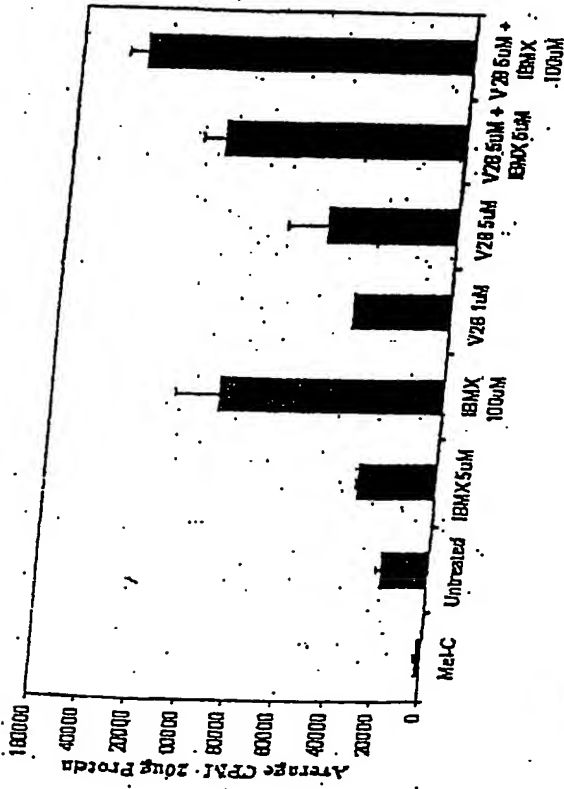
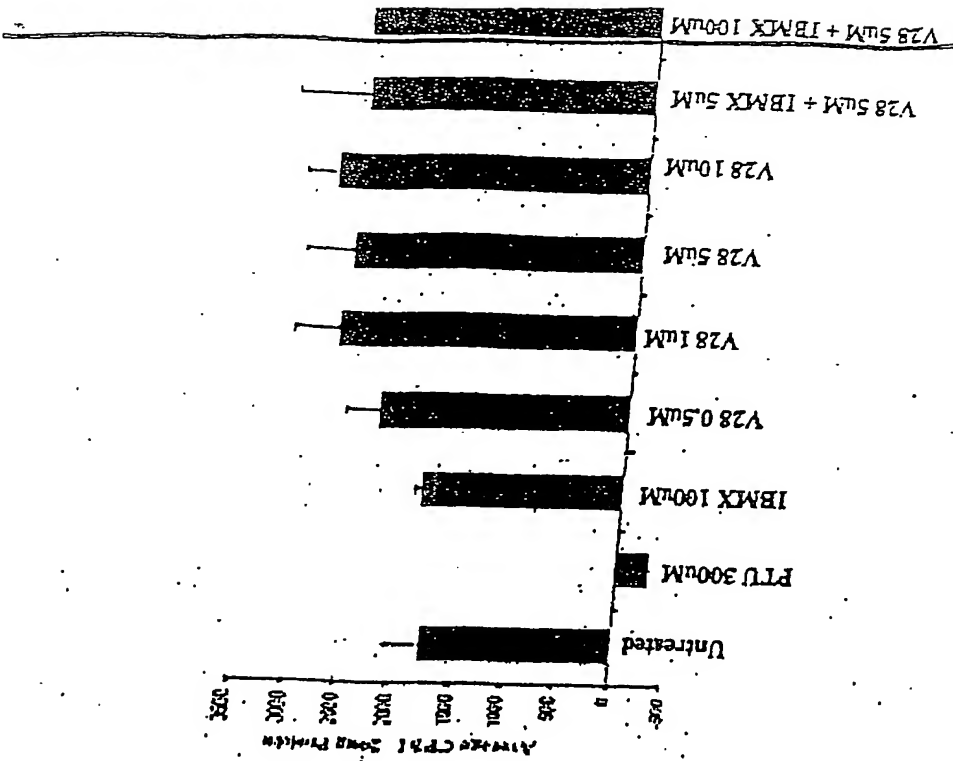


Fig. 1

Fig. 2



A

B

C

Scheme 1. Synthesis of the library compounds.

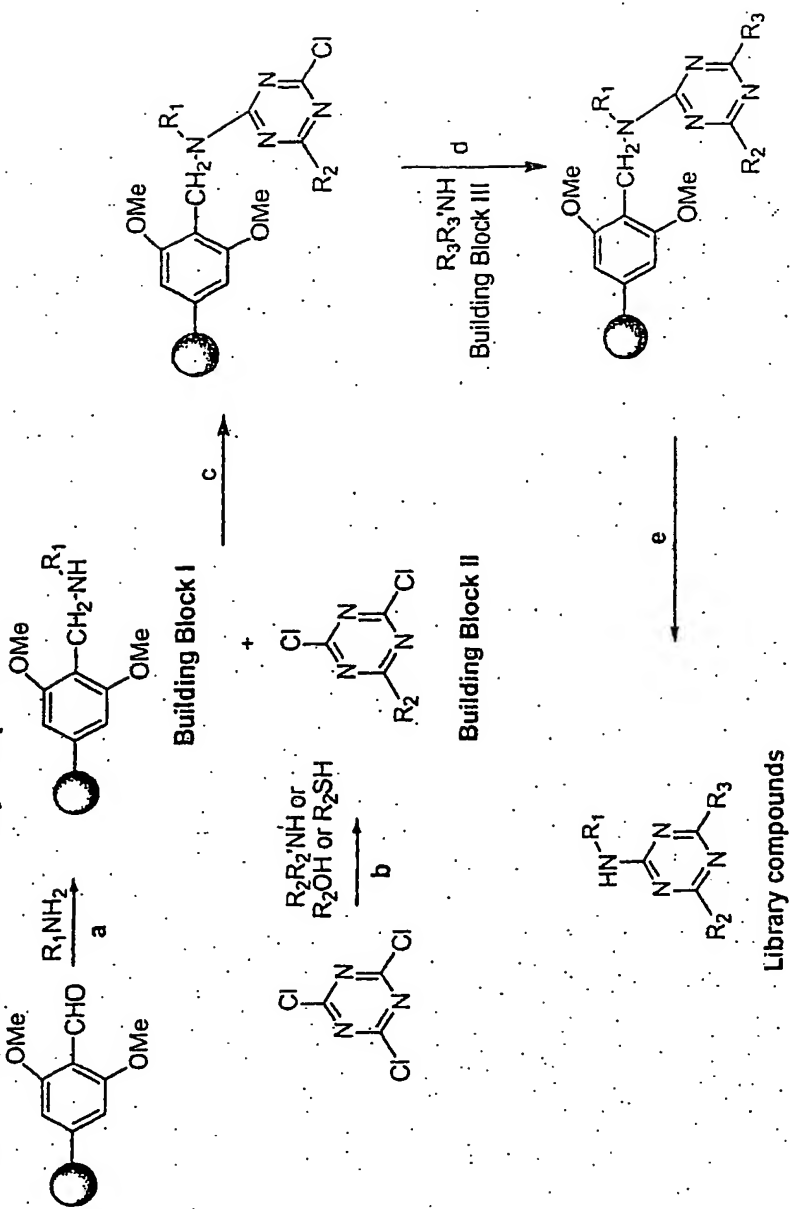


Fig. 3

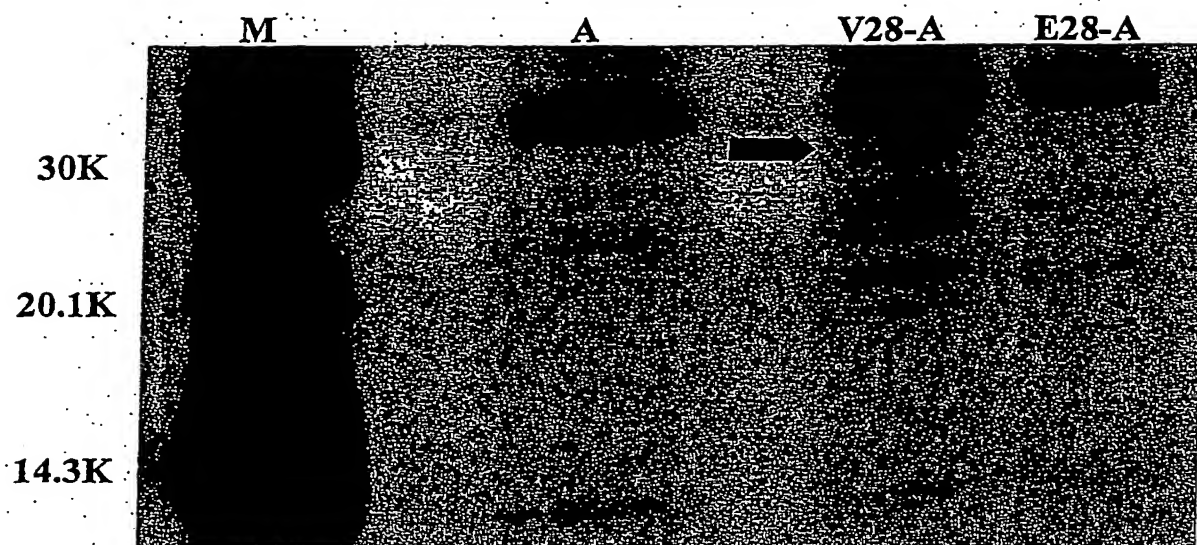


Fig. 4

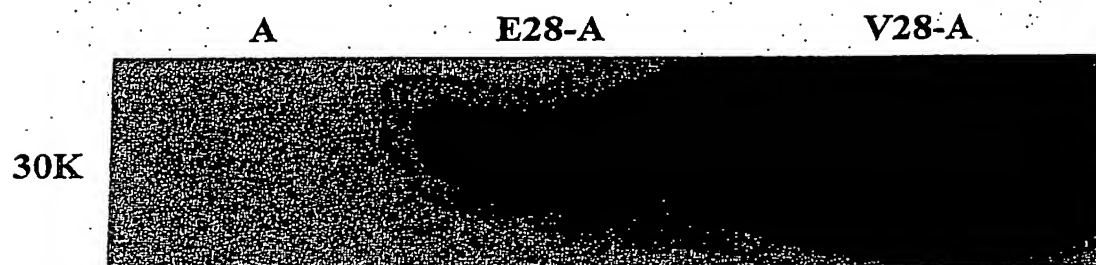
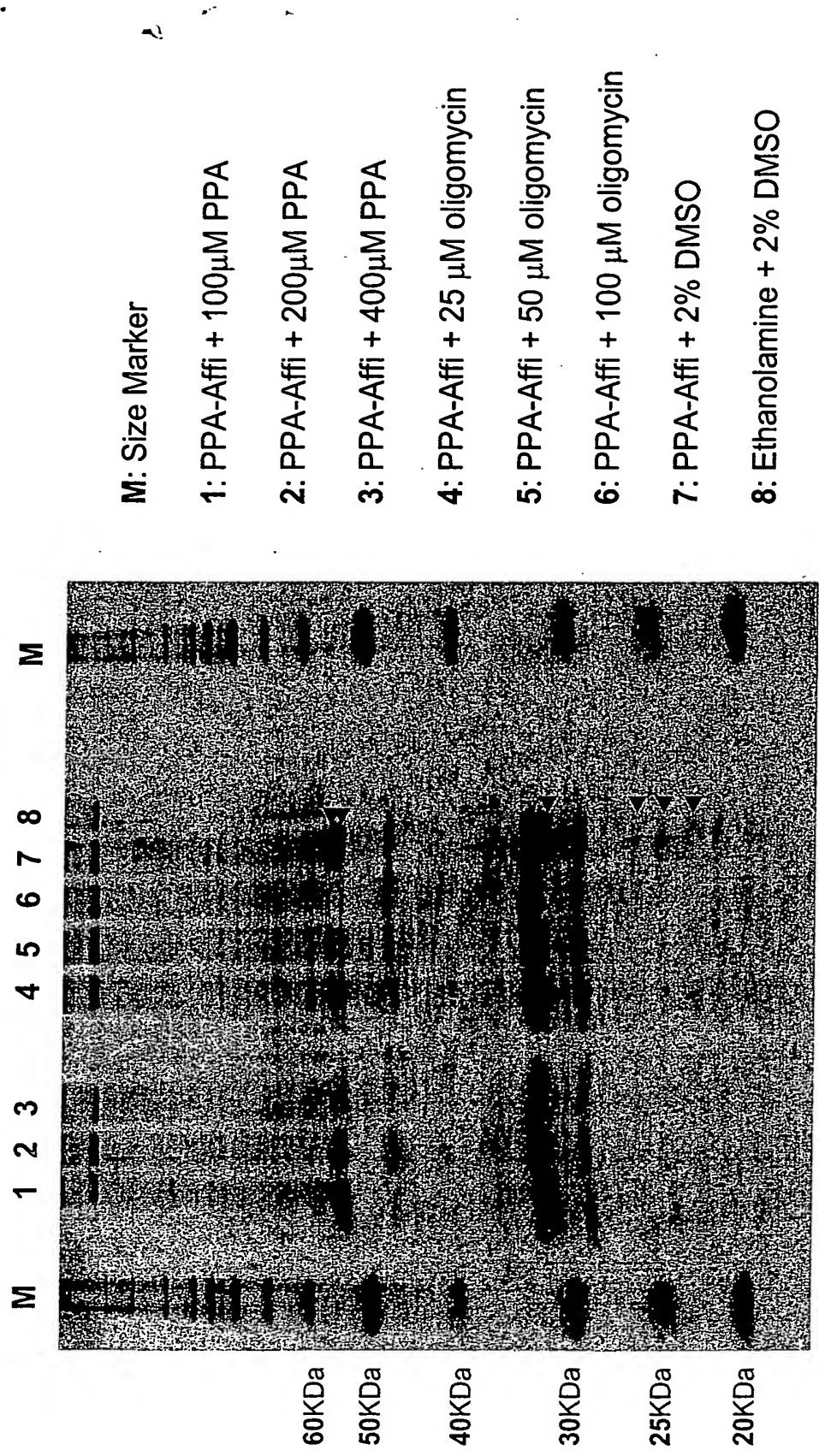


Fig. 5

Oligomycin can inhibit binding of ATPase subunits to PPA-affinity matrix



• α,β, and γ subunit, Mitochondrial H⁺-transporting F₁F₀-ATPase (*Mus musculus*)

Fig. 6

Affinity chromatography: Competition

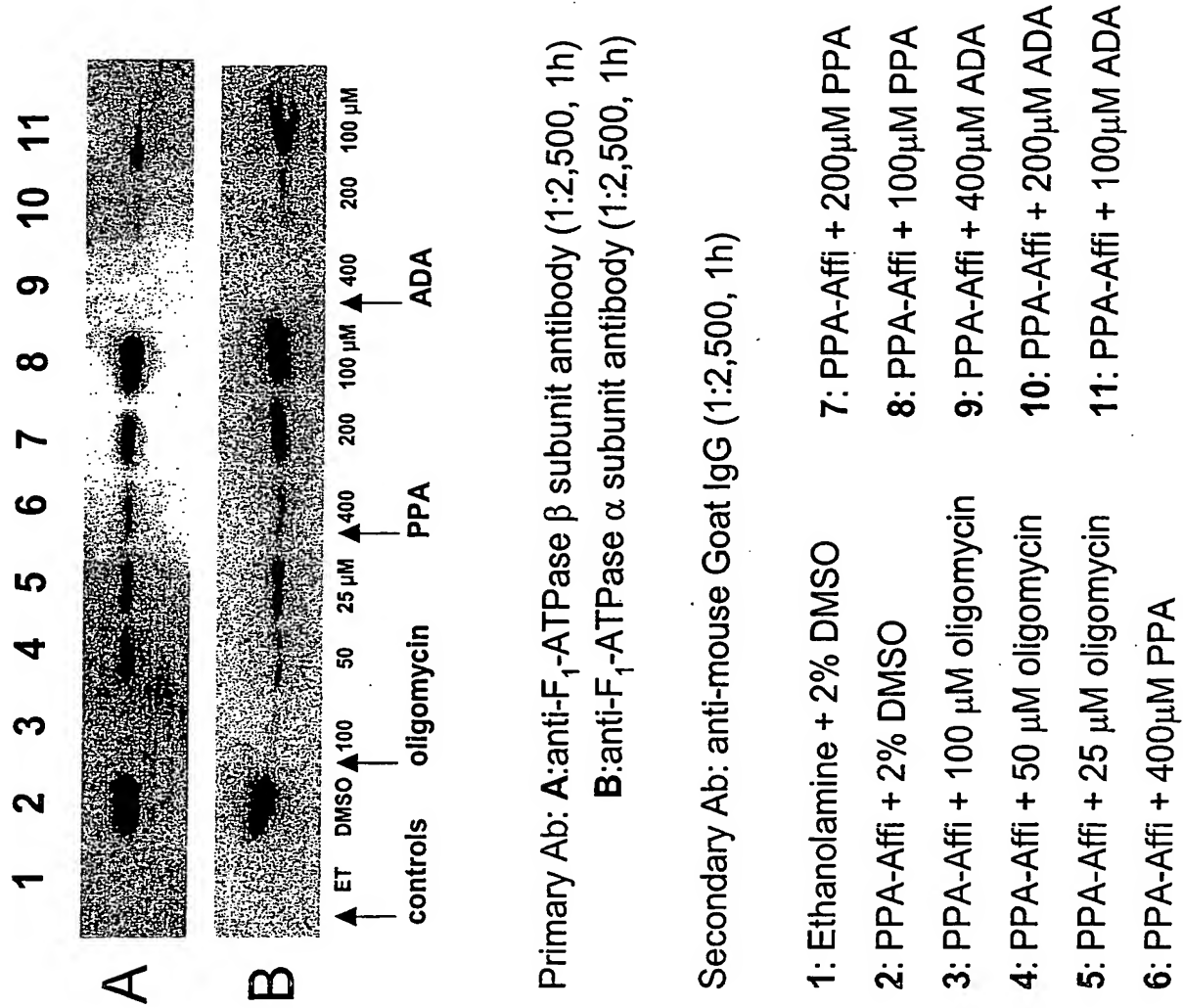
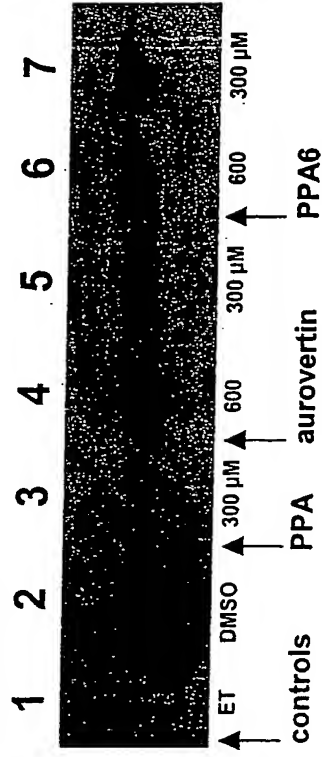


Fig. 7

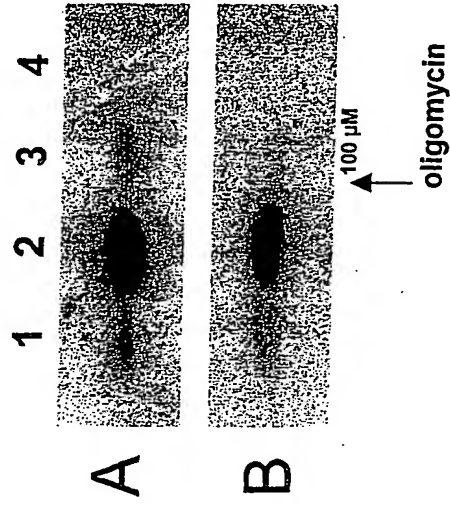


Primary Ab: anti-F₁-ATPase β subunit antibody
(1:2,500, 1h)

Secondary Ab: anti-mouse Goat IgG (1:2,500, 1h)

- 1: Ethanolamine-Affi + 2% DMSO
- 2: PPA-Affi + 2% DMSO
- 3: PPA-Affi + 300μM PPA
- 4: PPA-Affi + 600μM aurovertin
- 5: PPA-Affi + 300μM aurovertin
- 6: PPA-Affi + 600μM PPA6
- 7: PPA-Affi + 300μM PPA6

Fig. 8



Primary Ab: **A:** anti- F_1 -ATPase β subunit antibody
(1:2,500, 1h)

B: anti- F_1 -ATPase OSCP antibody
(1:2,500, 1h)

Secondary Ab: anti-mouse Goat IgG (1:2,500, 1h)

1: PPA6-Affi + 1% DMSO

2: PPA-Affi + 1% DMSO

3: PPA-Affi + 100 μ M oligomycin

4: Ethanolamine-Affi + 1% DMSO

* OSCP(oligomycin sensitivity conferring protein)

Fig. 9

1 2 3 4



Primary Ab: anti- F_1 -ATPase d subunit antibody
(1:2,500, 1h)

Secondary Ab: anti-mouse Goat IgG (1:2,500, 1h)

- 1: PPA6-Affi + 1% DMSO
- 2: PPA-Affi + 1% DMSO
- 3: PPA-Affi + 100μM oligomycin
- 4: Ethanolamine-Affi + 1% DMSO

Fig. 10

72h drug treatment

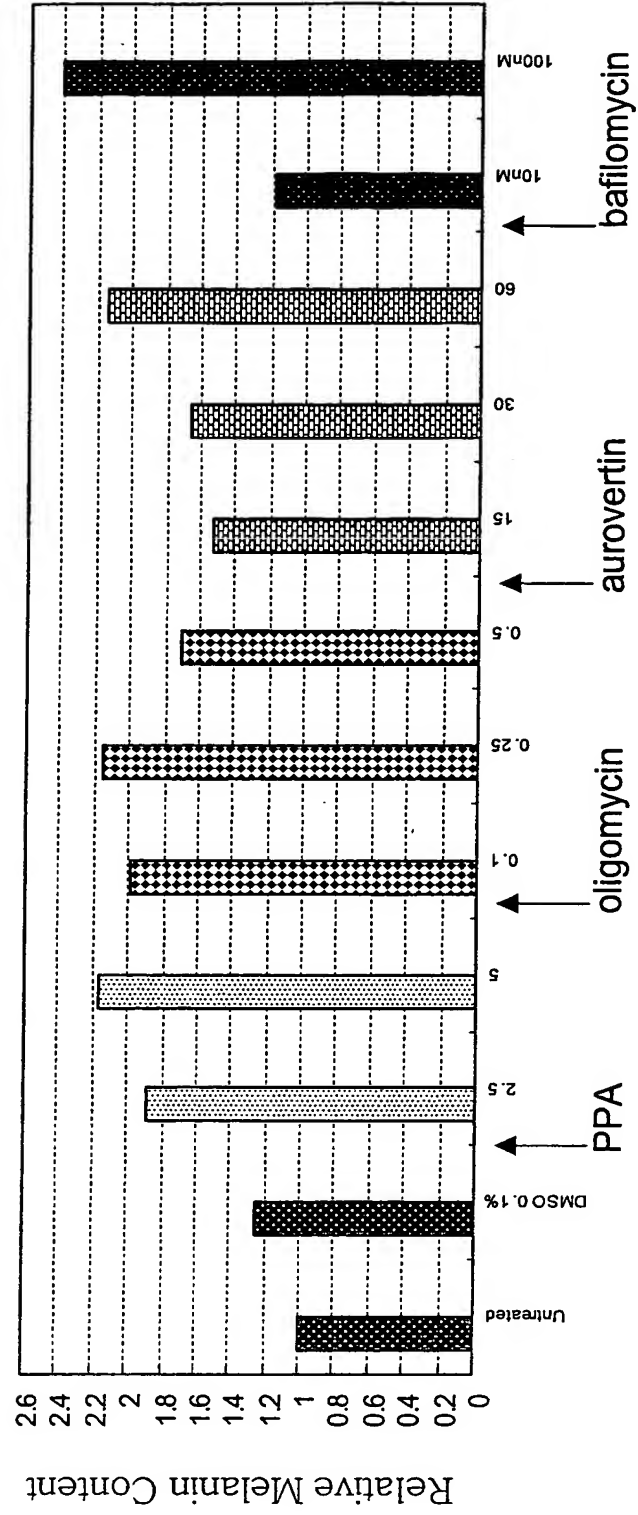


Fig. 11

PPA and oligomycin in Mel-a cells (24h incubation)

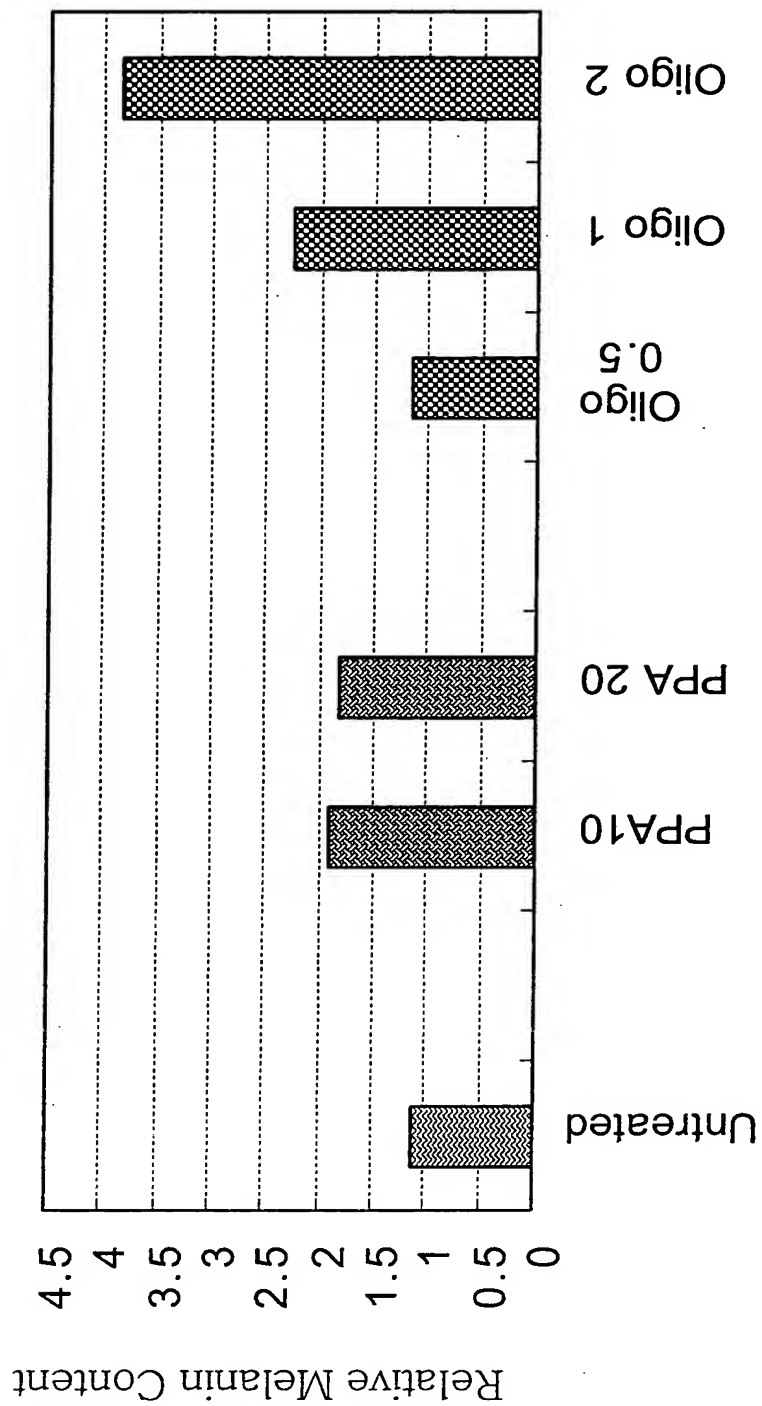


Fig. 12

Aurovertin in Mel-a cells (24h incubation)

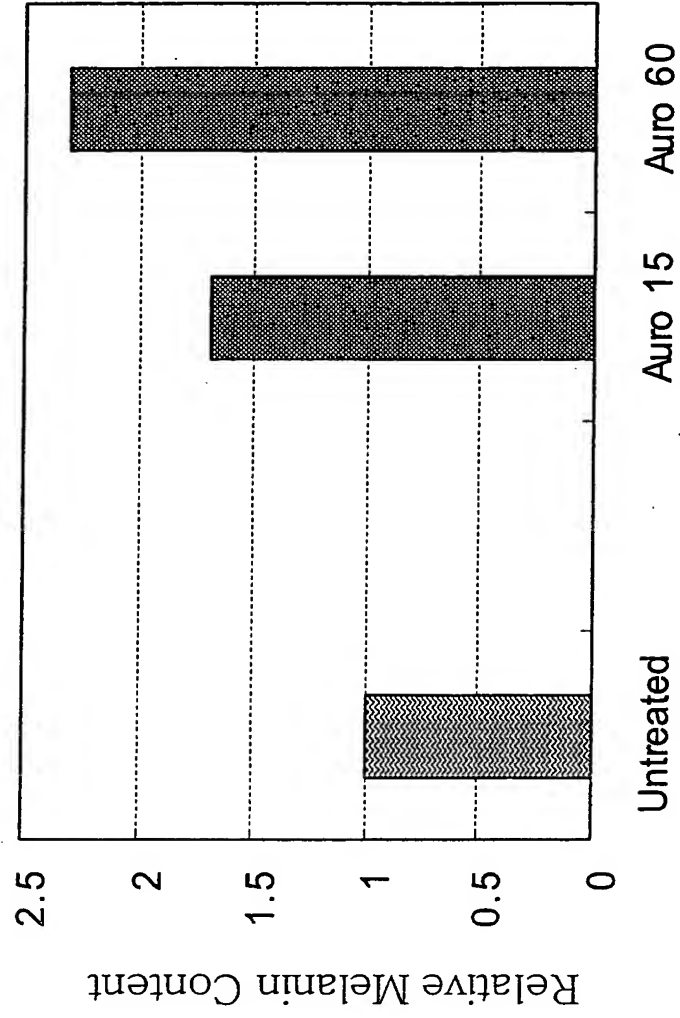


Fig. 13

Structures of compounds PPA & ADA (active pigment promoters) / PPA6 (inactive)

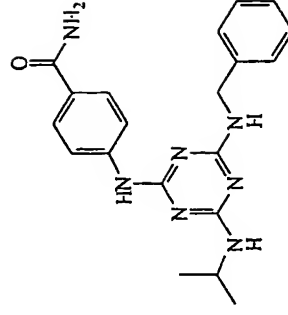
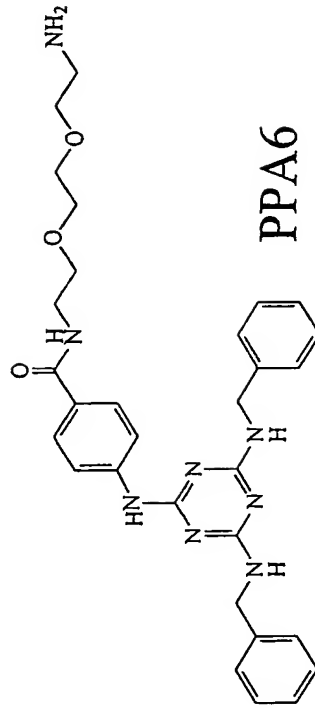
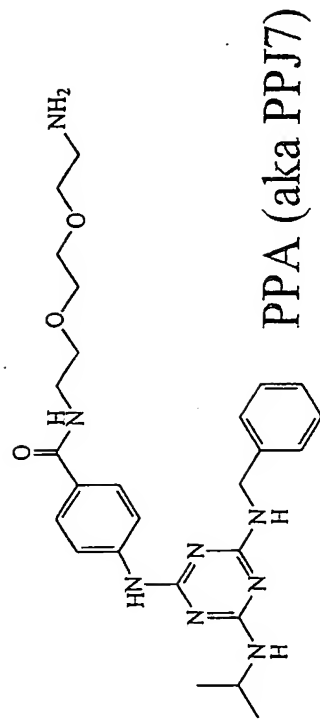


Fig. 14